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ADDRESS OF THE VICE PRESIDENT.

"Hic labor, hoc opus."

SIR—Humbly qualified as I am, it is with no small diffidence I address the President of the Agricultural Society of Prince George's County, at a period so especially imposing. Splendid theory, is already the current coin of the day, and productive practice is becoming constantly more frequent wherever our art is cultivated with the care it merits.—But I have, sir, no speculations to offer, by the interesting and ingenious originality of which I can hope to instruct, or even amuse. I have no practice to exhibit, by the magnificent productiveness of which, I can aspire to command rational admiration, or excite gaping wonder and astonishment.

Unlike Sir Humphrey, whom it is most fashionable now to quote on almost, every occasion, I have no chemical doctrines in readiness, to solve, to my own satisfaction, even the numerous and perplexing questions which beset us, at every turn we take in the practical walks of our most important, yet very difficult art. Unlike Mr. Gregg, of England, or our own De la Plante, of Maryland, the latter making a thousand bushels of grain (including grain of all sorts) per hand, I have no report of produce to set forth, which, by its smiling physiognomy, its alluring and prominent features, projecting in bold relief, can serve to cheer agricultural enterprise and industry, dispel the doubts of the sceptic, reanimate the hopes of the unsuccessful, and meet and satisfy the sanguine expectations of the bold, inexperienced, dashing projector.

Yet, Mr. President, a sense of duty, arising from the relation in which I stand to this board, urges me to tender it, with due and timid respect, the humble results of my own limited experience, and of a still more limited range of observation. These results I do not presume to offer, as guides to the practice of others. Some of them may, however, subserve a sort of negative purpose. They may stand as beacons, to prevent the shipwreck of future adventurers, by pointing out the rocks on which my little bark has occasionally struck, in daring to navigate the dangerous sea of agricultural experiment. My own observations and experience, then, prefaced by a few remarks, which I deem it not improper to make, on what I conceive to be the true objects of this association, and on the spirit in which they should be pursued to their complete attainment, will constitute the pittance of contribution I have to offer, at this time, to its indul-

gent notice. In my humble opinion, therefore, this association should consider itself the self appointed guardian of the infant agriculture of the county. It should feel towards its ward, all the kind affections of the tenderest parent; should study her very constitution, and if it be formed delicate, or a little impaired by previous bad treatment, as most probably it may have been, should apply to its restoration those invigorating means, which affectionate zeal seldom fails to discover, and which with equal certainty, will conduct her, in safety and with reputation, to the period of sound, independent adult-maturity, when, with grateful kindness, she will not fail to dispense to society at large, the blessings which the first of arts never refuses to bestow on laborious, intelligent man. The small number of members belonging to this society, and the manner in which its meetings have been hitherto attended, give occasion to infer, that the agriculture of the county needs no improvement, or, that the improvement needed, is not to be obtained from societies, but from individuals, left "to manage their own affairs in their own way"—the former inference however is too obviously and grossly inconsistent with fact, to need serious refutation, and the latter will meet its refutation in numerous arguments, to be drawn from the history of agriculture, and from the more comprehensive history, still, of human nature itself. The history of our art, if faithfully consulted, will fully show, that wherever societies, for its improvement, have been established, provided they have been well conceived in their organization, and duly executed, general improvements in rural economy, has been the necessary result. For instance, let us give the agriculture of Scotland, England, Switzerland, &c. in Europe. In the United States, that of Pennsylvania, New York, Massachusetts, &c. and more recently, the improving agriculture of Virginia, and in some parts of this state, perhaps, under the fostering influence of recently established societies.—Whilst on this topic, let me not forget to remind the inhabitants of Prince George's, that their society, though a neglected child heretofore, has the right of primogeniture in its favour, which, though not legitimate in a political, is certainly honourable in an agricultural sense. The history of human nature shows, that man's noblest aspect is exhibited in his associated actions. It is when his energies are combined, by one common feeling, in one common cause, that his greatest importance and dignity appear. All this results from a constitutional, implanted principle of his nature, enthusiastic zeal, which never fails to show itself, when men are associated by strong feeling, proceeding from a conviction of the importance of a joint cause, tending to common benefit. This principle needs only to be enlightened, ever to conduct to valuable results. It is the constitutional object, therefore, I humbly

conceive of this board, to excite, first, the laudable zeal in question, and then enlighten it, by every means within their reach. These means are either external, or internal, to be found among others, or among ourselves. Wherever they are to be found, it is the bounden duty of this association to find them, then to make them public property, by the publicity it has the power to give. Our board, then, to pursue its noble purposes, in their true spirit, should diligently cultivate both, but more especially the latter. It should rouse the internal resources of the county, by exciting a disposition to observe, and to experiment, in every nook and corner of it. Are the Princegeorgians, contented with their rural economy, imperfect as it is, or do they mean to be supinely inactive, to depend on their ignorance being enlightened from abroad, and thereby, at once, violate every sacred duty of independence and magnanimous patriotism? Is it, that they claim a right to act, in the spirit of a maxim, often attributed to Mr. Jefferson, but justly belonging to the French economists before his time, namely, that every person should be left to pursue his own business, in his own way. If so, let it be recollected, that this maxim, is, no doubt, a sound one, when applied only, as it ever should be, to municipal regulations, to provisions of positive law; but wholly false, when attempted to be made applicable to the affectionately parental admonitions of an association of independent individuals, combining their knowledge, their zeal, their benevolence, in a common enterprise, and that enterprise the most interesting to humanity, owing to its having for its object, the improvement of an art, vitally essential to its best interests.

These arguments, drawn from moral duty and rational prudence, it is hoped, will not be deemed deficient in strength, especially when aided by the more useful consideration, that, to devise the means of improving poor land, would operate powerfully, as a cause, to prevent emigration, and thereby increase the value of land in general, by keeping up an effectual demand for it; if, however, they are not yet strong enough for their purpose, what can be said, in answer to the following, drawn from a religious source. The God of nature has blessed the inhabitants of this county, generally speaking, with a soil originally fertile, and therefore, though much reduced at present, readily improvable by the practice of proper means. Would not, then, the diligent pursuit of such means be an expression, at once, of a sense of gratitude to their God, and of duty to themselves.

In drawing the distinction, between municipal regulation, and the admonitions of a society of independent members, free with the rest of their fellow citizens, to embrace or regret similar admonitions, by the exercise of the right of private judgment, I omitted to enforce, as I should have

done, the difference in principle, by some practical illustration. Suppose, in the recent high prices, that have been given for land and negroes, in consequence of the extraordinary high prices, of produce, of tobacco in particular; again, in the change of grass to arable land, for the purpose of cultivating that plant, an agricultural society, respectable for its intelligence and benevolent zeal, had interposed its advice, as such a one, ought to have done, that advice founded, too, on the solid basis of past experience, in similar cases, and on the soundest and most perspicuous principles of political economy, might not many individuals, nay the community itself, to a considerable extent, have been protected against the injurious consequence, of such speculations and of such practice. In such a case, the inflexible control of positive law, would have been tyrannical, and like all other tyrannies, necessarily injurious.

Skilful, prudent, wise agriculture, then, to arrive at the highest grade of profit and dignity, should be a steady, consistent principle, and not subject to the caprices and whims of sudden changes, like such as take place in what is emphatically called fashion.—A man may capriciously change his dress and his furniture, with comparative impunity, because, the changes are not so momentous in their consequences, and may be more readily remedied, being an affair of present pecuniary loss merely. But, when the routine of a farm is changed, and a concurrence of adverse circumstances make the change an unpropitious one, its consequences are, from their nature, permanently felt, and the remedy is, necessarily distant. This is more particularly the case, perhaps, when the culture of the necessities and conveniences of life are changed for products that only subserve the purpose of mere luxury. I omitted to make one somewhat important remark, perhaps, when on the topic of the spirit, in which this association should pursue its objects. It should do every thing in its power, to encourage communications from individuals, distinguished, as good managers in the general, an object, certainly more worthy of its notice, than particular success, in a particular crop, occasionally. Such communications, should be solicited, on any terms, as to mode, whether made by the person himself, or by another faithfully, for him, in writing, or verbally, as may best suit the convenience of him, who confers the obligation by communicating desirable information.

In oral communications, something like a *process verbal*, might be officially taken by the secretary. When matters of importance are thus collected, they should be speedily made public, at the expense of the society, if necessary, according to constitutional provisions. In a word, all the officers of this institution, should be scrupulously exact, and most punctilious in the performance of every duty. Their lamp of zeal should burn with a pure and constant flame, as it is there, that others will, and perhaps should expect to light up theirs.

I have made the foregoing observations, with due deference and respect, and in the earnest endeavour to remove some prejudices which I suspect exist, relative to the association, and which are founded in false notions as regards its objects, and its capacities to be useful. If these prejudices were removed, I doubt not, but that the respect-

ability of this board, growing out of a sense of its usefulness, would be gratefully felt, and as gratefully acknowledged by all intelligent persons, engaged in the rural affairs of the county.

I am now arrived, at the practical detail of this address. Having established, in a former part of it, my own observation and experience, as the standard to which I should refer particulars, in this stage of my communication, I am free to state as follows:—That I have completely abandoned, never to be resumed again, I expect, the *fallow system*. For several years my wheat crop has been diminishing, as well as that of rye, in comparison with what I used to make after Indian corn. The same effect has taken place as to clover, and even oats, in land of the same, or rather improved quality. In many parts of my fallow fields, the wheat and clover have been destroyed by the blue grass. Here, I think I am warranted, by my standard, to advance an opinion, in which it may be, few will join me. It is that this blue grass, on whose devoted head innumerable curses and execrations have been heaped by ungrateful man, is destined, at least in this part of the world, to be one of his principal instruments of improvement. To give it the requisite opportunity of effecting this important purpose, the rotation of crops should be as follows:—Corn, wheat, rye, or oats, succeeded by clover, which is to waste into blue grass, two or three years, exclusive of the stubble year. If one had shifts enough, three years would, probably, be the best interval between grain crops. I deem myself warranted, by my standard, in saying, that the more blue grass land is stocked, when somewhat previously improved, the more that improvement progresses, and the more excellent the pasture becomes. It is the latest, the earliest and the best I have; it is not inconsistent with the growth of some timothy, and a good deal of white clover, during a part of the summer. It is agreeable to my standard, to say, that wheat is the most difficult of all crops to make. It must be, indeed, in clean, manured land, if any certainty, or any considerable amount of crop is expected, it must be seeded by the last of September, or the first week in October. I have often known a few days make the difference between a good and bad crop, more particularly if the land is not manured. In manured ground, later wheat will, in some instances, look very well; but it will not be as well filled as forward. It is conformable to said standard, to say, that plaster has no manner of effect, in any of its usual quantities, on my farm, nor on an adjoining one belonging to my brother, nor do I believe it has the effect that is frequently ascribed to it, on many others. It should, on this subject, never be forgotten, that error may be so associated with truth, as that man shall scarcely be able to make the separation; hence the various superstitions that have existed in the world; some of which, perhaps, will ever continue to exist, supported by the truth, with which they have been constantly conjoined. Let us, for a moment, here, examine this principle, as it applies to plaster. Deep and good ploughing, one of the most unequivocal modes of improvement, in almost every soil, is now, with those that use plaster, and believe in its efficacy, an almost constant adjunct. Manure, the most certain mode of improvement, is frequently, now an adjunct. I shall notice, on this topic, an occasional combination,

partly of a natural kind, which I do not recollect ever to have seen adverted to. It must be obvious to every accurate observer, that by the mere mechanical mixture of the primary earths particularly where fine soft clay predominates with more or less gravel or stone, there is a clover capacity given to land. This clover capacity, if I may be allowed the expression, may and may not exist in spots but a few yards apart. Suppose an experiment is made with plaster. A portion is applied on a spot having this capacity, which is to be compared with a neighbouring spot not possessed of it, on which no plaster is applied, the result will be as might have been predicted, a great difference; yet the difference is not attributable wholly to the plaster, hence it is impossible to say how much of the effect is to be ascribed to that cause, and how much is not; in a word, it is difficult, perhaps impossible, to say whether any of it be thus ascribable. On some soils, the greatest believers in plaster agree, that it is wholly inert—here the same experiment, as above, might be made, with the same result possibly in this case; according to the very terms of the proposition, plaster could not have any effect. It must, then result, if there be any difference from the mechanical mixture of the elementary earths, being different in the two spots, or from some other cause. There is no manner of doubt, that this difference in mechanical mixture, though not completely describable, *a priori* by the eye, or any other sense, may make a very great difference in the clover produce of two different pieces of land. Whenever this difference does exist in favour of a clover capacity, deep ploughing alone, especially if in conjunction with a little manure, will make a most astonishing improvement of the clover crop, as I have often known to be the case. In such a case, if plaster had been used by one of its admirers, most of the improvement, if not the whole, would probably have been ascribed to it. In the month of February, I applied (at the rate of two bushels to the acre) plaster to a tobacco bed, previously manured by the deposits of horn cattle and sheep, half of the bed not plastered. The plastered part is not nigh as good as the other, it being a little drier, and the season deficient in moisture. I have plastered some corn land, highly manured with long manure, and some adjoining land, manured in the same way, (the manner in both, with the plaster on its surface deeply ploughed in) is left unplastered, to compare the results. I shall furnish, in the course of the summer, all the experiments I shall probably ever make with this, in my estimation, founded on numerous, and valued experiments, a perfectly inert body, they will have for their object the testing of its supposed sceptic principle. It is inconsistent with the above standard to say, that stock enough should be kept on every farm, to convert all its offal into manure, which is to be carried out in its long state, and ploughed as soon as possible into the land, and as deeply as possible—all the manure, within one's power, being raised.

I am warranted by said authority to say, that he will, of necessity, be among the best farmers and planters, practically speaking, who keeps the best teams and feeds well; keeps the best instruments of all sorts, and indues numbers and variety; who uses those well and in time,

and seeds in time, and plants in time, and who destroys conflicting vegetables in time. I have seen somewhere, a theory of agriculture set forth in the following simplicity:

"It is to dispose of redundant water, and to destroy weeds." A little reflection will instantly show the comprehensive import of those two actions, and that very probably most of the circumstances of good farming enumerated above, are resolvable into them. It accords with my standard, to say, that all the animals which it is prudent to keep on a farm, should be well fed, particularly in the tenderness of infancy, which will make them larger and healthier, and somewhat less food will be necessary afterwards to make them look well. It accords with said standard, to say, that oxen are very valuable on a farm for deep ploughing, heavy draft on level ground, and a short distance; that they are much cheaper in their food than horses. I have had them wrought every day, in winter, Sundays excepted, at hard work too, with little more than oat straw, which is an excellent food for them—that and Ruta Baga would be amply sufficient. The same authority bids me say, that pumpkins and turnips, in both of which, I have had much experience, as articles of food, are not sufficient of themselves to feed stock; but that they greatly cheapen other sorts of feed, by lessening the requisite quantity, more especially when there is a convenience for boiling them. In the use of these substances, there is this consideration to be taken into view, they are destined by nature to have not only the effect of food, but that of medicine—otherwise I believe they would be nutritious enough of themselves; but their purgative or laxative effect, passes them off too soon. An excellent medicinal use may be made of turnips, by giving them to horn cattle, kept up in winter to wheat straw, &c.; they become very costive, and a feed of turnips, two or three times a week, would counteract that effect, which is very injurious to their health. Those two articles of food aid very much in converting straw and corn stalks into manure—green clover in summer, contributes very much to that effect. I am sanctioned by the same authority to say, that the principles of the farmer, and his instruments too, may be applied to the successful formation of tobacco beds, namely the plough, harrow and roller. I have a piece of ground consisting of about three quarters of an acre or more, in the estimation of judges, some parts of which had been some years ago, in tobacco beds; other parts were in trees of some use, grubs and many stumps throughout the whole. I penned, at night, about fifty horn cattle and two hundred sheep in this spot, for about five weeks, in the last of October, and throughout November: they manured it very highly. In the winter I took up the trees by the roots, all the stumps and grubs, and with a two horse plough, turned in the manure about two inches deep. In February burnt it, harrowed out all the small roots, seeded, raked, and rolled one half of it; the other was seeded the first of April. The part first seeded, is an excellent bed, as good as any I have seen, the other is promising as a later bed. The predictions that the plough would be injurious, that grass seeds would destroy it, &c. &c. have all proven false. When the plants are taken out, I shall seed it down in oats, and plough them in,

and reseed from time to time, to destroy weeds that may come up, and fertilize, at the same time. In September, I mean to seed it down thickly in oats and rye, to be pastured from time to time by sheep: the oats will perish as the severe frosts come on, and the rye will serve for some ewes and lambs, throughout the winter, in open weather, until about the middle of February; when after a free application of ashes, I shall use the plough, harrow in the seed with a light harrow, followed by the roller as before, and repeat the same course, except manuring by stock from year to year, with scarcely any trouble. My standard sanctions me in saying, that sheep on dry sandy ground, in winter, provided they have a dry field to run on in the day, will manure a considerable quantity of ground for tobacco, by moving their pens, from time to time, taking care to have a permanent shelter, to which they may be removed in stress of weather. That stock hogs may be confined in winter, with as little expense, provided they be kept dry and warm, as if let to run out, this too without the risk of their being stolen; and, if they be well supplied with long litter, will make a great deal of manure. It is consistent to say, that I have since the winter applied manure, made from offal, as above stated, on different parts of the farm, amply sufficient for thirty acres. I can also say, that turnips are the most exhausting crop I know. It is farther consistent to say, which I have the happiness to state to your wearied patience, as my last act of consistency, that a large farm, complicated in its products, requires unremitting labour, timely and severe attentions; that the cultivator, to succeed, must regulate his every action, in the spirit of my motto, "*Hic labor, hoc opus.*"

WM. A. DAINGERFIELD.

N. B. It is not intended to deny the efficacy of plaster on some lands, but to deny its efficacy, as relates to my own observation and experience, and to express general doubts.

FROM T. S. LEE, Esqr.

On the Culture of Indian Corn.

Dear Sir, NEEDWOOD, MARCH 9, 1819.

Your favour of the 5th December came duly to hand, and it should have been replied to much earlier, but a long confinement by the gout, prevented my attending to business of any kind, and the delay was increased by the carelessness of my servant mislaying the letters; they are now before me. I wish it was in my power to give satisfactory answers, to Mr. —'s interrogations. I will comply with this, and your request, as well as desultory training enables me.

A few ideas picked up here and there, induced me to conduct my farming business as follows: The basis, deep ploughing, heavy manuring; clover, and plaster were also resorted to freely, until I paved the way to procure animal and vegetable manures, in sufficient quantity. From necessity, I commenced with long, or half rotted manure, and fortunately it proved by experience, the best way of applying it. Carry twenty cart loads to the field for each acre, spread and plough it in under a deep furrow without loss of time, the seams of the furrow to be closed, to prevent

the atmosphere exhaling it, and interrupting the fermentation; no danger of its sinking even in a sandy soil, because both animal and vegetable manure rise to the atmosphere. My course is, to take four crops in succession, from the same field, viz: 1st Corn, 2d Wheat, 3d and 4th years Clover. Commencing with corn—let the field be in good heart, manure as above-mentioned, spread and ploughed under a deep furrow as speedily as circumstances will permit; harrow down the ridges and close the seams of the furrows for the reasons before assigned. In due time, cross plough, then cross again with a heavy harrow; lay your rows out in straight lines; this operation to be well performed and may be best done with the plough, the distance from three to four feet each way; let the seed be good, sound and heavy, and from fruitful ears; place the grain with regularity in the check. Now, if the earth be friable, introduce the shovel plough, an excellent tool, if skilfully used, the light harrow crossing the ploughing: a smart hand, with a light hand rake with three teeth, may uncover the corn and open the crust occasioned by dashing rains and the heat of the sun, both harrow and plough to run so near the corn, as to remove the greatest part of the hill, which may be again restored by the same operation; the plant must be firmly set, before this is attempted. If the field be infected by weeds or grass, then again carry in the small harrow: the plough removes them, and by breaking the earth from the roots completes their destruction.

Previous to sowing wheat, the small harrow should leave the surface level, that the grain may be strewn with regularity. Unmixed wheat, entirely cleansed from filth, sound and heavy rolled in plaster, and sow seven pecks to the acre. Before seeding, take out the tops, and have the blades taken off; plough in the seed, not extending three inches deep with the shovel plough, the small harrow to cross the work of the plough, that the place called the step may be levelled, and the seed thereon covered; the hoe then to chop about the corn, taking care not to draw the earth from the hills, but to raise and let it fall perpendicularly, all clods to be pulverized; lastly divide the fields in lands, three corn rows in width, and lay them off to suit the situation of the field, so as to guard against washing into gullies, so that draining furrows may be useful; as soon as the corn can be gathered with safety, cut the stalks near the ground, and carry them to the place designed for sheltering your stock; they will then be heavy and contain saccharine juices; the cattle and hogs eat them with avidity; after they are picked apply a part to cover shelters, and what remains will answer the double purpose of defending the stock from the cold, wet earth, and of augmenting your stock of manure.

Early in March, sow a gallon of clover seed, mixed with a bushel of plaster, to the acre. By adhering strictly to this method, a good crop of corn may be reasonably expected, and a crop of wheat of good quality, and in quantity but little inferior to the produce of a fallowed field. Clover rises with vigour after corn. Give to the clover a bushel of plaster to the acre, early in the spring of the third and fourth years; the operation of the harrow leaves the surface level for mowing and cradling; the third year will af-

ford a good crop of hay, and afterwards seed, or it may be grazed; the fourth year, the clover may be grazed. By this course, as much benefit will be from the increased fertility of your soil, as from the crops. In this routine, the Indian corn is rather a protecting, than an exhausting crop, from the partial covering it affords the bosom of the earth, at the season when the sun has most power, at the same time letting in sun and air sufficient to promote the growth of the crop. Manure cannot be had from the farm in the commencement, but with due care and perseverance, supplies may be had without foreign assistance; and when that is effected, the quantity may be increased almost to any extent. Besides the leavings of straw of all kinds, corn stalks and fodder, all weeds before seeding, draw leaves from the woods to litter your hogs, mix them with straw for sheep, cows and horses; the droppings from the horses and cattle to be collected from the roads and lanes on the farm by the negro children. If there be marshes at hand, cut any coarse grass and haul up to be added to the manure heap. Ashes, lie, and even soap suds, may be made useful on the occasion.

MR. HEBB'S REPORT.

Sir,

OCTOBER 18, 1818.

Since the last meeting of this society, I have had an opportunity of complying in part, with a resolution, passed at the last meeting, appointing Mr. J. LAW and myself, a committee to report the amount of produce exported from this county, in each year. The only article, that I have been able to ascertain with certainty, is the crop of tobacco of 1816, which, according to the returns made by the inspectors, amounted to 4460 hogsheads inspected in the year 1817, as the product of the preceding year, to which may be added, 200 hhds. shipped out of the county without being inspected; to this quantity may be fairly added, one fourth, as the increased product of the last year, equal at the present averaged price, to \$873,000; a sum perhaps not equalled by any county in the state of Maryland. In the cultivation of this plant, great improvement has been made of late. It is now generally admitted to be as innocent in its effects on land, as almost every other plant, and is no longer ranked among the exhausting crops. Most of its friends are of opinion, that land will produce a crop every third year, by returning to it a crop of clover, with the use of one bushel of plaster paris, in each of the intervening years, and some gentlemen have informed me, that on a soil adapted to it, they have made very profitable crops, of a hogshead per acre, from worn out commons, by a single plastering; at that rate in autumn, when all the vegetable matter it afforded, was turned in, so that by an improving rotation, a whole estate may be converted into fields, for its cultivation, proportioned to the force to be applied. I have had no data, by which I could form an estimate of the other exportable productions of the county, and am, sir, your obedient servant,

WILLIAM HEBB.

Mr. T. LAW, President of the Agricultural Society P. G. County.

Entomology.

Dr. Jos. E. Musk, to the Agricultural Society at Annapolis.

CAMBRIDGE, MD. MARCH 20, 1819.

"Hoc opus, hoc studium, parvi properemus et ampli."

DEAR SIR: I have long been impressed with the opinion, that no branch of science; perhaps, more deeply interests the practical farmer, than Entomology, and none is generally less regarded. The numerous class of insects that blast the most flattering prospects, are suffered yearly to repeat their ravages, without a serious effort to obviate the evil, and the vast varieties, so useful, are suffered to perish, from the want of knowledge to preserve them. To learn the natural history; to inquire into the habitudes of life; the characters, changes, and metamorphoses, of beings so important, are objects not so frivolous as they may appear to the ostentatious, but superficial observer; it is the only mode, rational or practicable, whereby the propagation of the one, and the destruction of the other, may be accomplished.

With these views, I have made repeated experiments in Entomology; and one of the first objects that attracted my attention, was the worm that inhabits the corn, usually called the grub-worm. I had seen a paper on this subject, by RICHARD PETERS, Esq.; in which he represents its parent state to be the "*scarabeus volvens*." This fact I doubted, as Mr. PETERS had not himself witnessed the experiment reported by him, though he believed the fact, and proposed a remedy founded upon it: I doubted it, because I had seen the *scarabeus volvens*, in so small a state, as to be almost invisible to the naked eye; upon which the reasoning occurred, that the product of a chrysalis so large, as must necessarily be that of a grub-worm, could not, by analogical inference, be as diminutive as the *scarabeus volvens* is frequently seen and known to be, and consequently, that Judge PETERS was deceived. To come at the fact, I carried into the field a large transparent bottle, which I half filled with earth; upon this earth I deposited about a dozen of the worms, which were then devouring the corn, and gave them corn blades to feed upon. In a few weeks, or less perhaps, they disappeared; I searched the earth, and found them chrysalids, enveloped in balls of earth. A considerable time after, I again examined them, and found several of them matured, and extricated from their envelope; others, a soft and white pupa, with limbs more or less distinctly formed, in various states of progression, and exhibiting unequivocal proof of their origin, and of the impossibility of mistake or deception. These destructive animals belong to the order "*coleoptera*" of Linnæus, having crustaceous elytra, or wing cases, which shut together, and form a longitudinal suture down the back; they are about one quarter of an inch in length, of a shining jet black colour, very quick and active in their movements, and are seen in vast numbers under wheat stacks and in wheat yards.

The brief history of this insect is, that its larva, or caterpillar, having fed upon the young corn, descends into the earth about the depth of four inches, where it assumes its state of chrysalis, in which it continues until about the first of July,

when it becomes metamorphosed into the imago, or parent, which in autumn, deposits its ova in the fields, to undergo a similar series of transitions, which is effected by the heat of the ensuing season.

The obvious preventive, is fall or winter ploughing, at such a depth as will turn up and expose to the frost the ova, whereby they must perish.

To prove the efficacy of this method, in December, 1816, a field which I designed for corn, was ploughed four or five inches deep; the following season, my neighbours' corn fields, as well as those of the county generally, were assailed and nearly ruined by this destructive worm, when mine was almost wholly exempt from their annoyance.

Another insect, the "*curculio*," of which there are nearly one hundred species, belonging also to the *coleopterous* order, commands, from its universal ravages upon both the farmer and the fruiterer, the attention of every member of the community, who has it in his power to contribute, in the smallest measure, to the destruction of this ruthless foe to the wealth and luxury of man; which frustrates, by its concealed and wily movements, the most rational and well founded plans, executed by the most ardent and efficient energies of the human mind and body. Are we not inclined to exclaim, with the moral and philosophical SENECA, "*Natura quam te colimus inviti quoque*." How repugnant to the proud feelings of man, to stoop to combat with this insignificant animalcule! How resistless are the ordinances of nature, which compel us, by acts so humiliating, to admire and adore that complex creation, whereby the great Architect has seen fit to enforce them!

I have made experiments on the larva of several species of *curculiones*, and have found the parents so nearly similar in *habitat*, metamorphoses, and most other circumstances, that one description will suffice for their whole history; at least of those which I have examined; and the only mark of idiocracy in the tribes which I have observed, consists in their choice of a *nidus*; selecting, from their peculiarities in this respect alone, the cherry, the plum, or the grain of corn, as their instinctive or innate propensities might incline them.

In a transparent bottle containing some earth, I deposited several cherries, in which were the larva of the *curculio*, that infests that fruit; in a few weeks, or rather as soon as the pulp of the fruit was consumed, which was at different periods, they retreated into the earth, where upon examination some time after, I found they had assumed the state of *chrysalis*, which shortly resulted in that of the imago or parent; the wings of the insect were not sufficient to accomplish a flight, but merely to assist its ascent of the body of a tree; from which circumstances, I was led to the following reflections and experiments to test their correctness:

That the remedy must be such as would act, physically, to wit: To interrupt the metamorphoses, by preventing the descent of the larva into the earth; to expose to the weather, the pupa, after its descent; or to intercept in its ascent of the body of the tree, the parent insect; or, chemically; by substances, known to be generally deleterious to that class of animals.

The fruit being the *nidus* of the *ovum*, and the earth the *habitat*, in which it is brought to maturity and makes its abode, and the *larva*, from its soft and delicate structure, incapable of travelling, or sustaining exposure; when the fruit containing the *larva* has fallen and is rotted and consumed by the insect, the *larva* must descend, by the most correct route, from its original depository, the fruit, into the earth, its permanent abode, there to undergo the metamorphoses, which will bring it to maturity, and fit it for a new series of depredations, which is so secretly performed, that though myriads are employed, they are never detected in executing their work of destruction, the deposit of their *ova*. Hence I concluded, that one of the most effectual preventives, would be paving with brick, stone, shells, or some other hard substance, impervious to the soft *larva*, a circular space round the fruit tree, as extensive as the fall of the fruit, by which it would be interrupted in its descent into the earth, and consequently perish; or that it might be accomplished, by turning up the earth under the tree to the same extent, and thereby exposing to the inclemency of the weather, the tender *nupa*, of which two methods, the former is to be preferred; because thereby you arrest the passage of the *larva* to maturity, and necessarily destroy it. The latter method, if not performed in time, may allow the perfection of the *imago*, and in this state it is unquestionably more hardy and capable of providing another habitation, as secure and comfortable as that of its first election. And by the experiments which I have made, its descent and maturity are at uncertain and unequal periods, which would make an insuperable difficulty, in point of time, for performing the operation; if before the descent, it would necessarily be useless; if after the maturity, equally so, for reasons given.

This view of the subject, has led me, repeatedly, to both experiments, which I have fairly and impartially made, without the influence of any prejudice, which it might be presumed, my reasoning had connected with, or in favour of the former; the result was, the fruit with which I made the experiment that had been destroyed by *curculiones*, for many years, were in all cases, when I paved or shelled, entirely exempt; in two cases only, when the earth under the tree was turned up, at different seasons, the fruit escaped injured, but from the number that failed, I was inclined to ascribe these two to causes accidental and extrinsic.

The third method proposed, viz: to intercept the parent in its ascent of the body of the tree, by various obstacles which the mind will readily suggest, and thereby prevent its deposit of *ova*, though I have made no experiments upon it, I conceive to be rational, and easily accomplished; and with those species of *curculiones*, of which there are many, whose wings do not admit of flight, but assist them only in climbing, it would undoubtedly be effectual.

The fourth remedy which I propose, of a chemical nature, I have made but partial experiments to establish, such as are not yet satisfactory or conclusive; when finished, it will give me pleasure to report them, if the result be successful, by a fair and candid detail of facts.

I fear I have already trespassed on your patience, and will venture merely to notice the

parent of a singular *larva*, which some years ago, very generally, throughout the state, as you no doubt remember, threatened to exterminate the whole vegetable creation, as far as it travelled; in whole districts, not a solitary blade of wheat, oats, or rye, nor a remnant escaped its voracious appetite, and the grass was swept, in its march, as if by a scorching fire: so formidable were the destructive multitudes, that fosses, abatis, and parapets were constructed, to repel their advances, and the ditches were filled with their dead bodies. I deposited in bottles, with earth, several of these *larvæ*; they shortly went into *chrysalis*, and came out a fly of the *lepidopterous* order, precisely like the candle-fly, in all respects. This result, I report, because numerous as they were, and as much alarm as they occasioned, I have never seen a notice of a similar experiment; and it may, in case of a return of these hosts of enemies, afford a clue to their destruction. We at least, are not averse to know, something of an enemy, which has, and may again assail us with more disastrous ravages.

If, sir the present communication shall have the effect of inciting to inquiry, on these interesting subjects, the enterprising and intelligent farmer; if the plan of research, which I have ventured to suggest, shall afford him any assistance; if I have added one ray of light, whereby more may be obtained, my purpose is answered, and my most sanguine expectations fulfilled.

I have the honour to be,
sir, your obedient servant,

JOS. E. MUSE.

To the President of the Agricultural Society at Annapolis.

Maryland and Pennsylvania Farming, compared.

No. I.

For the AMERICAN FARMER.

To cultivate land to advantage, and at the same time to improve the soil, and thereby render estates more valuable, is certainly an object of the first magnitude to a farmer; hence many people suppose, that as it is the interest of farmers to do so, that they are all employed in this honourable and lucrative pursuit; whereas, but little observation and experience would be sufficient, to convince them that the reverse of that supposition is the fact; that the largest half of the lands, even within twenty miles of so good a market as Baltimore, are in but indifferent order, and very carelessly nay wretchedly cultivated, which deteriorates the soil, and the worse the soil gets, the more it and the improvements are neglected, until they are in ruins, and valuable farms become a burden to their proprietors, which circumstance has given a character to the Maryland lands, that they do not deserve, and in consequence of which, it is almost as difficult to sell a farm in the neighbourhood of Baltimore, for half its value, as it is to draw a prize in the lottery. For example, we find that lands naturally no better, in York and Lancaster counties in Pennsylvania, sell for five or six times the price that ours do, and notwithstanding they sell so much higher, they are much readier of sale than ours, and all vend their produce in the same market, which circumstance alone is sufficient to show that something must be wrong. The

writer of these remarks lodged lately with a farmer of the society of friends, from York county, Pennsylvania, who has bought a large farm ten miles from Baltimore; he informs him that he sold his land in York for \$100 per acre and bought where he now lives for \$20. I inquired of him what he considered to be the difference in natural fertility, between the lands in the vicinity of Baltimore, and York, and particularly as it regarded the farm he sold and the farm he bought. He answered me by observing, that on that subject he had the vanity to think he had some judgment, as farming had been his only employment through the course of a long life; and having lived long enough on his present residence to form an opinion, the result of his experience, on his judgment was, that the lands in the neighbourhood of Baltimore, were naturally as good, and that they were much easier improved and fertilized than the lands in York; and as it regarded the farm he sold and the farm he bought, he gave a decided preference to the latter.—In the first place he thought the soil as good, as that he had sold, and much easier improved, and surer cropping land for wheat and clover, as they did not spew out with frosts in winter so much as they did in the flat lands in York; he further observed that when he farmed in York, he sold his surplus produce in Baltimore, after hauling it over an expensive road of sixty miles, but now he was situated within ten miles of the market's mouth, ready to take at a high price, every thing he had to spare, and to supply his wants with less labour and inconvenience than he could in York. He also informed me, that he bought the farm he now lives on of a gentleman in Baltimore, who had been farming it with an overseer and about twenty negroes, and that the proprietor was constantly at the expense of all kind of agricultural instruments, cloathing for his negroes, and many other expenses, among which no doubt, were the wages of the overseer, taxes, plaster, clover seed, and frequently a horse or two from the Baltimore market; but what is still worse, had to purchase food for his servants in the Baltimore market, nearly half the year.—And when the York farmer and his wife went to Baltimore to get a title to their farm, after the title ceremony was over, the wife of the Baltimore gentleman observed, in the language and manner of sincere charity, being in wealthy circumstances and of liberal disposition, that she was afraid that they, (the Quakers) would suffer on that poor farm, (knowing what disbursements her husband had to make for the support of it) and intreated them if such was likely to be the case, to let her know it, and she would certainly administer to their distresses. Suitable thanks were returned for her kind offers, but it alarmed the Quaker and caused him to keep correct accounts, to see how he was going on, and the result was, that the first year, (which is always the worst with a farmer, having every thing to begin and arrange for future operations) he spared of produce, which he did not want, clear of all his expenses, between four and five hundred dollars worth, and every year since considerably more, and this too without any advantage (or perhaps more properly disadvantage) of slave labour.—What a contrast! the Marylander ruining his lands and impairing his fortune to maintain slaves, and that too, perhaps, against their consent. The

Pennsylvanian comes, and without slaves, makes a fortune, on the same place, and at the same business that a Marylander spent one. Fearing that I shall trespass too much upon the limits of your useful paper, to the exclusion of more important matter, I shall reserve the conclusion of these remarks for a future number.

A YOUNG FARMER.

Hartford County, May 26th, 1819.

SOWING SMALL GRAIN.

The season approaches for preparing to sow small grain. This crop admits of but little cultivation, as it relates to the farmer, almost every thing depends on his manner of preparing his ground and sowing the seed—the rest must be left to an uncontrollable Providence. We take this occasion, therefore, to insert an article from the Memoirs of the Agricultural Society of Virginia, which in our opinion, is conclusive as to the expediency of shallow seeding, which our readers will recollect is also recommended in Judge PETER'S "NOTICES TO YOUNG FARMERS."

The observations of Mr. MERRIWETHER are clearly explained, and his arguments well supported by the annexed engraving.

From the Memoirs of the "Society of Virginia, for promoting Agriculture."

TO DR. JOHN ADAMS,
Secretary of the Agricultural Society of Virginia.

DEAR SIR—You will pardon the liberty I have taken in addressing you, or rather, the Richmond Agricultural Society, through you, of which respectable body I have not the honour of being a member; but believing that they will accept the intentions of one whose object is the promotion of the general welfare, though not one of their own body, I have undertaken to communicate a little information, which, I hope will not be unacceptable to them.

The Hessian Fly proving extremely destructive to the crops of wheat in Virginia last spring and summer, and much having been written in the public papers on that subject, without adding one solitary useful fact to our knowledge respecting them, except the one communicated by General Cocke, respecting the manner in which they deposit their eggs on the blades, and descend into the sheaths of the wheat; a fact for which we ought to be much obliged to him, and hope he will proceed in tracing their natural history, by a careful and minute attention to their progress through their different stages; till that is done. I am inclined to believe, that we shall not receive any really useful knowledge respecting the best means of counteracting or destroying their pernicious effects, though aided by the most splendid hypothetical speculations that human genius can invent. After having minutely traced their natural history, the next object that presents itself is, to ascertain the nature and manner of the growth of the vegetable on which we propose to counteract or prevent their injurious effects, viz. wheat. This becomes the more necessary, as there have been plans proposed of more injurious consequences, as I believe, than the Fly itself; particularly one published some time ago in the *Richmond Enquirer*, by a person signing himself "A King William Farmer," who recommends early and deep sowing—a remedy which I have often

seen totally destructive of the crop, the seed having rotted in the ground.

In order to elucidate the manner of the growing of wheat from the grain, till it branches considerably, I have enclosed a delineation with its explanation, on which it is necessary to make some remarks, viz.: If a grain of wheat is placed six inches beneath the surface, it will vegetate and throw out two leaves, which are generally called seminal leaves, and corresponding roots, (see the delineation, A, *ec.* and *dd.*) then a thread is thrown out, which, as soon as it reaches near enough to the surface so as to come in contact with atmospheric air, it there forms a knob or enlarged point, which is the part from whence a new set of branches and roots are thrown out, which, in the autumn is about an inch and a half or two inches below the surface, (as in the delineation marked D.) After this period, the seminal leaves, roots, and the thread denominated caudex, dies and becomes useless to the plant: above which, it has a new set of roots, branches, &c. On examining many roots of wheat, some had a knob between the seminal and coronal roots, as at B. appearing to be an effort of nature which proved abortive, being not near enough to the surface to obtain air. If the seeds placed any where between six inches and two from the surface, there will be a set of coronal and seminal roots and branches; but if the seed is placed any where between the surface, and two inches below, there will be only one set of roots and branches, and those immediately progressing in their different directions from the seed. I have said the stem or thread arises from the seminal roots to within two inches of the surface, in the autumn; but this depends on the dryness and porosity of the soil at the time of vegetating; for, after the soil has settled by rains and according to the tenacity and specific gravity of the soil, also its moisture, which increases the specific gravity, and prevents the access of atmospheric air, so will it be found nearer the surface; so that in the spring of the year, if any branching takes place at a late period, it will be found to be entirely on the surface.

From the above statement of facts I draw this inference; that if a grain of wheat is deposited upwards of two inches below the surface, that it has an extraordinary effort of nature to make, to come up to that point beneath the surface where it has access to atmospheric air; and is proportionably great according to the depth, quality of the soil, moisture, &c. which must occupy a proportionable length of time, and consequently is equal to having been sown so much later, if put its proper depth; and this I take to be the secret of the *King William Farmer's* deep and early seeding, as he particularly mentions a mother root, which I take to be the seminal root, (as at A in the delineation:) which is an evidence of the grain being deposited deeper than nature intended it should, for it is not to be found in wheat unless deposited upwards of two inches beneath the surface. He having mentioned the mother root, ought to have told us somewhat about where the daughters were to be found; for it is upon them that the *Hessian Fly* commits its ravages; and I fancy they will always be found less than within two inches of the surface, the depth which he admits the fly to penetrate. He admits also, that all the seminal leaves were dead, a pretty good proof that the roots were so also.

The next inference I make is, that the branching of wheat being within that distance, to which the *Hessian Fly* is known to penetrate, and that its branches become shallower and shallower according to the lateness of its branching, that deep seeding is no preventive against the ravages of the fly.

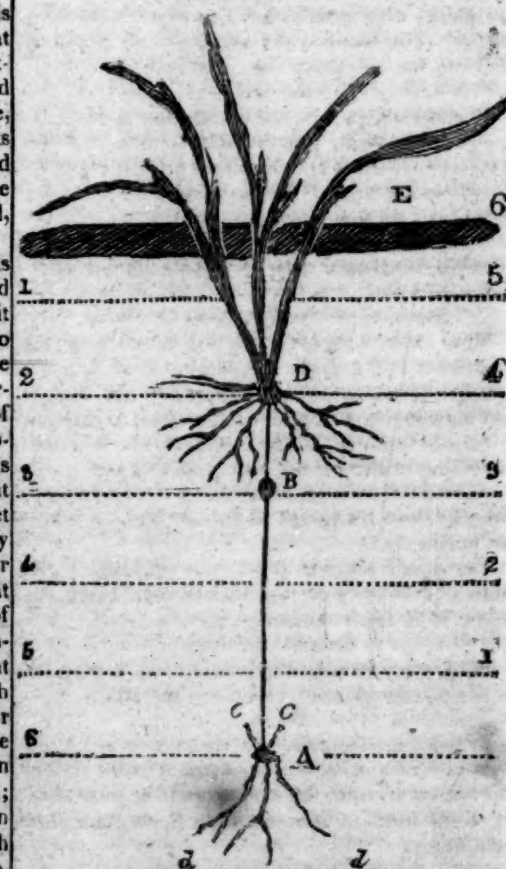
The last inference, and not the least, is that where the seed is deposited deep, and out of the influence of atmospheric air, that should the season be moist or wet at the time of seeding, the specific gravity of the soil being increased, and its pores closed with moisture before the vegetation has reached the branching point, the seed will rot in the ground, and either partially or totally destroy, or rather prevent a crop being made. This happened to several of my friends this last fall, and is a circumstance that I have seen often happen, notwithstanding the strong disposition farmers have discovered of late years for deep seeding. To conclude, from a consideration of the above facts, and thirty years experience, I am of opinion, that the best depth for seeding wheat is, from one to two inches.

Thus I have endeavoured to communicate my ideas respecting the growth and depth of seeding the wheat crop, and as connected with the *Hessian Fly*; should it prove acceptable to the society, I shall be amply rewarded for the trouble I have taken—and with my best wishes for the welfare of their undertaking,

I subscribe myself their friend,

WILLIAM MERIWETHER.

A delineation of the growth of wheat from the grain till it branches.



A The grain of wheat deposited six inches beneath the surface of the earth, where it sprouts

and throws out roots and two leaves which are called its seminal leaves and roots, and a central thread denominated caudex.

B A bulb formed on the caudex, being an effort of nature to form branches and roots at that place; but being too far out of the influence of the air, goes on to within two inches of the surface.

D The coronal roots and branches, formed two inches below the surface, having now reached within the influence of atmospheric air.

cc The two seminal or first leaves, dead when the wheat has branched on the surface, and are hardly discernable without the aid of a magnifying lens.

dd The seminal roots also dead after the coronal roots appear, and then are no longer useful to the plant.

E. The surface of the ground.

1, 2, 3, 4, 5, 6. Dotted lines, marking the number of inches beneath the surface at E.

From the Practical American Gardener, published by Fielding Lucas, jun.

For the Month of August.

Savoy, Brocoli, and Borecole.

In the first week of this month, finish planting Savoy at the distance of two feet. With a little care, they may be preserved through the winter.

The early York Battersea, and sugar-loaf plants the seeds of which were sown last month, may now be planted out, and some more of the seed sown the first week in this month, for heads late in October. In the southern states, where the plants may remain out all winter, this will be useful. Plant now your last crop of Borecole, also the Brocoli from the nursery beds.

Radishes.

In the early part of the month, sow a sufficient crop of short-top, purple, and salmon radishes, also some of the white Naples, and white and red turnip-rooted sorts. In the middle or latter end of the month, sow a second crop.

Some of the white and black Spanish kinds, or winter radishes, may be sown at either of the above periods.

Sowing and transplanting Lettuces.

The kinds proper to be sown, early in this month for fall use, are the brown Dutch, grand admiral, large royal, imperial, white cos, Mogul, and New Zealand lettuces; sow them as directed in former months. In the last week of this month, sow some of the brown Dutch, hardy green cabbage-lettuce, and grand admiral, to transplant in October, into frames of warm borders, for winter and spring use.

Transplant lettuces from your seed beds; give them a plentiful watering, as you plant them, and repeat it as often as necessary.

Small Sallading.

Where small sallading is required, it may still be sown, and watered, as before directed.

Endive.

Transplant according to directions, such endive, as is of a suitable size, water it immediately, and repeat it, until the plants begin to grow freely. They must be planted in an open place, free from shade.

Select the large, full hearted plants of endive when the leaves are very dry, otherwise they will rot; tie them together, not too tight, about the

middle, with shreds of Russian mats, previously gathering all the leaves regularly.

Angelica, Fennel, and Carduus and Benedictus.

Sow these seeds this month; they will produce stronger plants than if sown in spring, and be fit to transplant early the next year.

Cardoons and Finocchio.

Cardoons that have been planted out, must be treated, as directed.

Earth up Finocchio, which is full grown, in order to blanch it.

Corn Sallad.

In the middle states, this should be sown in the last week of this month, for winter and spring use; it should have a dry soil and open situation, and carefully raked in; the plants will soon appear above ground, when they are to be thinned, from 2 to 3 inches asunder.

Melons and Cucumbers.

In dry weather, water your melon and cucumber vines three or four times a week; gather the fruit, as it becomes fit for use, and keep the plants perfectly free from weeds.

Winter Cresses.

The winter cress is sown and treated, as the corn sallad; it is commonly called scurvy grass, to which it is by no means allied. If sown in the last week of this month, or first in September, in a dry soil and warm situation, will afford an early sallad in spring.

THE FARMER.

BALTIMORE, FRIDAY, JULY 16, 1819.

It is said, potatoes may be kept good the whole year, by dipping them in hot water, as the Scots preserve eggs, by killing the living principle; and as the germ is so near the skin, it would not hurt the potatoe. One or two minutes, at most would be sufficient, in an open worked basket, a ton might be cured in an hour or two.—This would be useful in providing ship stores; the trial is easily made.

Thousands of foolish receipts are published and copied, which are found, on trial, to be fallacious.—Such was the one we lately copied about killing house flies with milk and pepper. It is presumed, the author funnelled them, as they will not eat it without.—We shall endeavour to avoid giving currency to worthless nostrums.

SKIPPERS IN BACON—give much trouble to housewives in the country.—It has been discovered by a female correspondent in the country, from whom we have received several useful communications, that skippers in Bacon may be effectually and speedily destroyed by the use of elder juice, but the exact manner of preparing and applying it, are not described. This ought always to be done in giving receipts.—The field is yet open for numberless useful discoveries in all the departments of rural and domestic economy.

Since writing the above, we have the following more particular account, from our esteemed correspondent:

"Last year we lost at least one third of our ham meat, by the skippers, notwithstanding every attention, but never destroyed the skippers while the meat lasted. Our neighbours were, in this respect, as unfortunate as ourselves.

This spring, knowing that our meat had been well smoked, and the weather being dry, we neglected airing it as is customary, until our old enemy the skipper, returned, and had eaten it smartly. Sister, who attends to it had it examined, scraped and sunned; (no one can be more particular.) In a week after, she had it examined and found that there were in it nearly as many skippers as at first; you

may suppose, after the loss we suffered last year, we were very anxious to destroy this troublesome insect. I had known for many years, that elder juice would destroy maggots. If a hog, sheep, or any other animal gets wounded, and the flies get to the wound, they will create maggots; by washing the wound with elder juice, they will roll out by hundreds, if there be so many in it. I proposed therefore to try it on our bacon. The leaves were accordingly beat in a mortar, adding a little water; the flesh side of the meat was rubbed with the leaves thus bruised, and where small holes appeared, the juice was poured in. In three weeks after, the meat was re-examined, and the skippers utterly destroyed. The application here described, does not in the least degree communicate any bad taste to the meat. I have little doubt, that this, with many other simple applications within the reach of every housekeeper, might be applied to many other useful purposes, if proper pains were taken to make the trial. If such homely communications, on such homely subjects, are admissible in the American Farmer, you can publish what I have written, as you know you can depend on its accuracy, and I shall be amply paid for my trouble by what I know I shall receive, the thanks of many.

A HOUSEKEEPER.

THE DROUGHT—is said to exceed any ever collected in this neighbourhood—fortunately wheat and rye had made too much progress during the favourable weather in the early part of the year, to be materially injured—but the crop of oats is destroyed, and hay very greatly diminished in weight—pastures are literally burnt up, on many fine lots—not a sprig of living grass is to be seen; all the productions of the garden which come now in season, have been destroyed or greatly injured and diminished. Last Sunday, which was intensely hot, gave promise of a fine rain, but we were favoured with enough only to lay the dust and cool the air, momentarily.

TOBACCO—The season has been unusually adverse to the cultivators of tobacco—February and March were very unpropitious to the sowing and sprouting of seed; and since plants were large enough to put out, no seasons have offered, and the plants have been burnt up in the beds; if query—ought not beds to be located, when practicable, near a stream of water, with a view to watering the beds, for which some machine or utensil, might be made less tedious than the common watering pot—though even with that, we would suppose, that one man would water a large bed of plants in a few hours, but this should always be done late in the evening or very early in the morning; the former perhaps would be better.

RUTA BAGA.—The summer has been unfavourable to a fair experiment of the Ruta Baga, on account of the unprecedented drought—seeds planted in June would, we should fear, perish for want of rain to make them vegetate.—It is useless to sow the seed in the present state of the ground. The time recommended by Mr. Cobbett, for Long Island, is the 25th June, with which, we should think, from the 10th to the 15th July would correspond in Maryland, and south of it—but we should not hesitate to take advantage of a season, any time before the first of August, or even the first week in that month. We once knew a good crop of common turnips from a sowing on the 10th of September.

WORKING OXEN.—When oxen refuse to work equally well on either side, or when they pull off against each other, yoke them on the side you wish them to work and turn them out to feed in that way; they soon become accustomed to it, and work afterwards on either side alike.

THE PROFITS OF LIVE STOCK.—We are well convinced that this subject, deserves the serious consideration of a great portion of land holders, who now employ their care, and their capital, on objects much less profitable, and far more laborious, than

that of raising, or fattening live stock for the Baltimore, Washington, and other markets.—Not a week passes, that the Editor of this paper, does not buy both veal, and fresh beef, for his table; and he does not recollect that since the war, he has ever paid for either, less than twelve and a half cents per pound. For veal cutlets this morning, he had to give *fourteen cents per pound*. Now he holds it to be impossible, that meats could maintain such prices, if the hundreds and thousands of acres of waste land in Maryland—and, especially as he knows, in the lower counties of it—were judiciously appropriated to the cultivation of *artificial grasses*, which, he it remembered, after all, must constitute the basis of a live stock country.

Within the last week, a very respectable, and wealthy victualler of this city, bought of a gentleman near Charlestown, Virginia, fourteen bullocks, for which he gave him, 8 1-2 cents per pound—that is, for the butcher's meat. They averaged about 750 pounds each; so that the grazier may be supposed to have got at least sixty dollars a head, and, for the fourteen, not less than \$850. The butcher, we have no doubt, cleared \$20 a head, so that he cleared on the fourteen, at least \$280—two of these beeves yielded upwards of four hundred pounds of rough fat, which sells now at 9 cts per lb.

It is a curious fact, that while our beef market is supplied from a distance of *many hundred miles*, north and west of the city, above the great mail road, Farmers in Calvert, Charles, St. Mary's, Prince George's and all the lower counties of the Eastern Shore, look upon the proposition to raise live stock, for the Baltimore market, as an enterprise, little less bold, and difficult of execution, than did LEWIS and CLARKE, when they first contemplated an untrodden journey across the rocky mountains, to the Pacific Ocean; yet where is there a district better adapted to the raising of live stock, than the counties we have mentioned? Where is the use of their thousands of acres of fine marshes, and their *large farms*, universally adapted, especially on the Western Shore, to the kind and easy, and abundant growth of potatoes, and turnips, and red clover, lucerne and timothy for winter and summer food?

The whole United States, perhaps, does not contain a district so well adapted to supply our market with fine mutton, as that range of country, from Herring Bay, to the Mouth of Patuxent.—Its lofty cliffs and steep hills, and its peculiarly early, and abundant production of grass, offer to the sheep, that which is so congenial, and grateful to its character—a dry bed and a good pasture—yet, how many are brought here, from there, in the course of the year?—Perhaps not one.—How much veal?—Not a pound.—How much beef?—Not a single pound—yet a Steam Boat passes, almost within hail of every farm in the county, once a week—what an enterprising people! They would seem to dream away their lives, under the impression, that this world was made to produce nothing but tobacco, corn, wheat, rye, oats, and pine wood!!!—They often remind us of the boy, who riding to mill, in one of the lower counties of Maryland, with his corn in one end, and a large stone in the other end of his bag, to balance it, was persuaded by a passing stranger, to throw out the stone, and divide the corn equally in each end of the bag.—On returning home, he told his father of this novel, and as it seemed to him useful, expedient to get rid of the old stone, which had grown smooth in its services to the family. The father however, far from being satisfied, shook his head sagely, moralized on the apt tendency of youth, to innovate on old family customs, and sent him back to bring the good old stone, which had been the mill road companion of "his father, and his grandfather." There are, if we mistake not, many customs in rural management, that might be compared, without exaggeration, to the mill-boy, and the balance stone.

For instance—compare the expense of digging a well near the house, and convenient to the farm yard, which should supersede the necessity of driving the stock to water—with the labour and loss of time, and consequent expense, of sending small pails a

quarter of a mile for every drop of water the family uses, and driving the stock there for water; losing all their manure on the way—and most generally, not driving them back at all—and this continues from one generation, and one century after another!—But we are wandering from the subject—when the kindness of correspondents, shall fail to furnish us with matter, more useful than any thing we could suggest, we shall take up the subject of *artificial grasses*, as being the foundation of every good system of husbandry, and indispensable to the improvement of land—we shall treat of their various kinds, their culture, quality, &c &c.

Superior Beef.—We are informed, that the Messrs. Cassidy's purchased last week for a sum amounting to nearly \$600 four of the finest fatted oxen ever brought to this market. They were exhibited in the streets on Saturday last, and pronounced by competent judges to be superior to any thing they had ever before seen. The beef may be viewed this morning, at the stall of the above-named gentleman, in the Fly Market, where it will be offered for sale. Two of these fine cattle were fatted by Thomas Hoga, Esq. of Chatham, Columbia county, and two by Mr. Derum, of Rensselaer county.—*Albany pap.*

In this paper, we have concluded the publication of the proceedings of the *Agricultural Society of Prince George's County*, and who of our readers is not delighted, at the high promise of improvement, which must result from so much practical activity, and such a spirit of investigation and research? Though the proceedings do not mention it, we believe, T. LAW, Esq. a gentleman, whose acquirements are co-extensive with his extraordinary opportunities of observation, in various quarters of the world, is the President of the Society. His address was published in No. 15. That of the Vice President Mr. Daingerfield, will be found in this number; and demands attention, both on account of some novel theories which it contains, and the practical results established by actual and careful experiment. The communication from that eminent and exemplary Farmer, T. S. LEE, Esq. of Frederick, has called to our mind a very important essay of Gov. Nicholas, of Virginia, on the practicability and advantage of removing the corn, stalks and all, from the field prior to sowing it in wheat. If we can lay our hands on it, it shall appear in our next paper, as we deem it especially worthy of public attention. We can no longer defer suggesting to the several Societies, in the different counties, the expediency of memorialising the next Legislature, for a donation, to be distributed in premiums, for superior agricultural productions, and systems of management. We have not time or room, now to dwell upon the subject, nor does it, we should think, require it.

In some of the eastern states, the Legislatures have given small sums to Societies, on condition that the Societies themselves would raise a like sum.—In N. Y. \$20,000 has been appropriated, and what better use could be made of the State treasure, than by distributing it in a manner which would have a direct and powerful tendency to enlighten, and give encouragement to that calling, on whose skill and labour the prosperity of Society so mainly depend. We shall enlarge on this topic hereafter.

WINDSOR, (Vt.) June 21.

Extraordinary Cow.—There was taken from a cow belonging to Gen. Forbes, of this town, on the evening of the 4th inst. at one milking, 22 quarts and nearly a half pint of milk, notwithstanding her calf, which was healthy, had been with her during the day.

Staple, of North Carolina.—The very liberal patronage this paper has received in North Carolina, makes it incumbent upon us to state more particularly, hereafter, the prices of the staple commodities of that State.

The Persian Ambassador being present at a debate in the Chamber of Deputies, in Paris, a gentleman observed, that "the progress of Persia, was behind the light of the age." The Ambassador replied—'My master is cousin german to the Sun, and uncle to the Moon! and is content with the light of his family.'

POETRY.

ODE TO THE POPPY.

BY MRS. O'NEIL.

Not for the promise of the labour'd field,
Not for the good the yellow harvests yield,

I bend at Ceres shrine;
For dull to humid eyes appear
The golden glories of the year;
Alas! a melancholy worship's mine!
I hail the goddess for her scarlet flower.

Thou brilliant weed
That does so far exceed
The richest gift gay Flora can bestow;
Heedless I pass'd thee in life's morning hour
(Thou comforter of wo)

Till sorrow taught me to confess thy power.
In early days when Fancy cheats,
A various wreath I wove

Of laughing Spring's luxuriant sweets,
To deck ungrateful Love;
The rose or thorn my numbers crown'd,
As Venus smil'd, or Venus frown'd,
But Love and Joy, and all their train are flown,
And I will sing of thee alone;
Unless perchance the attributes of grief,
The cypress bud and willow leaf,
Their pale funeral foliage blend with mine.

Hail, lovely blossom! thou can'st ease.
The wretched victims of disease;
Can'st close those weary eyes in gentle sleep,
Which never open but to weep,
For, oh! thy potent charm
Can agonizing pain disarm;
Expel imperious Memory from her seat,
And bid the throbbing heart forget to beat.
Soul-soothing plant! that can'st such blessings give
By thee the mourner bears to live,
By thee the wretched die!
Oh! ever friendly to despair,
Might Sorrow's pallid votary dare,
Without a crime that remedy implore
Which bids the spirit from its bondage fly,
I'd court thy palliative aid no more!
No more I'd sue that thou should'st spread
Thy spell around my aching head,
But would conjure thee to impart
Thy balsam for a broken heart;
And by thy soft Lethæan pow'r
(Inestimable flow'r)

Burst these terrestrial bonds, and other regions try.

Current Prices of Country Produce—ascertained by actual sales—within the last week.

Wheat, red, new crop, \$1 30; a sale has been made at \$1 23—little in market. Corn, per cargo, 52 cents—retailing at 56. Rye, 65 cents.—Oats, 45 cents. Liverpool blown Salt, retail, 75 cents. Flour, superfine, from the wagons, \$6 25; store price, \$6 50. Bacon, the hog round, 12 1-2 cents. Butcher's beef, best pieces, 10 to 12 1-2 cents. Chickens, per doz. 2 50 to \$3. Veal, 10 to 12 cents. Mutton, 6 to 8. Salt Beef, prime pieces, 7 to 12. Pork, 8 to 10. Eggs, per doz. 20 to 25 cents. Potatoes, new crop, per peck, 25 to 37 1-2 cents. Herrings, per barrel, No. 1, 2 75 to \$2 87 1-2—Do. No. 2, 2 25 to \$2 62 1-2. Tar, per bbl. by the cargo, \$1 60. Rosin, \$2.—Pitch, \$2 75. Turpentine, \$2 50. Susquehanna Pork, per bbl. 14 to \$15. Boston Beef, No. 2, \$11 retail. Whiskey, from the wagons, 40 cents per gal. Plaster, in the stone, per cargo, 4 50 to \$4 87 1-2.—Do. ground, per bushel, 40 to 45 cents. Hay, timothy, new crop, \$20 per ton.—Straw, \$14. Tobacco, no change.